

## **The integration of social responsibility and sustainability in practice: exploring attitudes and practices in Higher Education Institutions**

### **Abstract**

The demands placed on Higher Education Institutions (HEIs) to deliver sustainability initiatives alongside their long-standing social responsibility commitments has been recognised in literature. However, how these interrelate in practice continues to be relatively unexplored. The extant literature suggests that the integration of the two connected agendas can be problematic due to a range of factors, including a general lack of awareness or even misconceptions of the respective agendas. This paper explores the attitudes and practices related to the integration of social responsibility and sustainability initiatives at HEIs. Theoretically, this study highlights the ongoing relative positioning and importance of economic factors – as it relates to differentiation rather than integration – over others such as social responsibility and sustainability. The main implication of this study is that provide useful insights into how HEIs can closer integrate two contemporary but potentially competing agendas.

Key words: sustainability; universities; social responsibility; institutions; awareness

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### **1. Introduction**

The role of universities in contemporary society has been described as catalytic in re-orienting society towards cleaner forms of production (e.g. Aleixo, et al, 2018) through sustainable development (Leal Filho, Manolas, Pace, 2015).

This role has been translated into practice in a diversity of ways, including sustainability reporting, education for sustainable development curricula (Aleixo, et al, 2018), as well as awareness-raising initiatives that promote interest in global and local understandings of climate change, poverty and the

scarcity of food, energy and water (Disterheft et al., 2015; Amran et al., 2016; Sullivan and Gouldson, 2017, Gusmão Caiado et al., 2017; Aleixo, et al, 2018). At the same time, universities have a long standing ontological commitment to wider society and indeed the processes of re-orienting society towards cleaner production with a focus on the needs of both the land and people (Bizerril et al, 2018). It is unclear, however, the extent to which social responsibility (SR) and sustainable development agendas have been integrated in organisational practices of HEIs. The extant literature highlights that integrating sustainability and social responsibility into organizational practice leads to not only reducing negative environmental impacts and improved social impacts, but also better governance (Ntim and Soobaroyen, 2013), improved financial performance (Saeidi, Sofian, Saeidi, Saeidi and Saeidi, 2015), and improved assessment of institutional quality (Weerts and Sandemann, 2010; Persons, 2012). At the same time however, although HEIs can potentially have local, national and international influence due to their population size, scope and affluence, the implementation of sustainability initiatives alone can be complex and problematic with a variety of barriers such as lack of leadership, lack of resources, and misconceptions (Sedlacek, 2013; Dyer and Dyer, 2017; Leal Filho, 2011).

Taken together these ideas suggest *integration* involves the development of a shared understanding of the two fields (SR and sustainability), and functional engagement throughout the organisational hierarchy. Clearly, simultaneously we can expect barriers to integration, in the form of misunderstanding, resource constraints, and weak leadership commitment.

The aim of this study is to therefore explore the integration of social responsibility and sustainability initiatives within the context of HEIs, in terms of three elements: practices and principles; scope of responsibility and scale of involvement; and Potential Barriers and Organisation Structural Conditions. The contribution of this paper is threefold. First, our findings provide new insights into perceptions around the everyday practices and principles that shape social responsibility or sustainability in HEIs. Second, our findings reveal the level of engagement and commitment by staff and other key HEIs stakeholders. Finally, this study highlights participant perceptions about the barriers and drivers to effectively integrating SR and sustainability in HEIs. Together, these aspects help generate a theoretical contribution which illustrates the differential conceptualisations of social responsibility and sustainability as well as relative positioning within organisational practice (Whettan, 1989).

This paper is organized as follows. The next section reviews the literature on a number of factors related to the integration of social responsibility and sustainability. This is followed by a description of the *Methodology*, involving a global survey targeted at HEIs. *Results and Analysis* follow, where the survey responses are analysed and organised around three broad areas that resonate with some of the main themes of the literature review: practice and principles; scope of responsibility and scale of involvement; and potential barriers and organisation structural conditions. The *Discussion* then highlights area of agreement and variation with the literature. Theoretically, this highlights the ongoing relative positioning and importance of economic factors – but also differentiation – over others such as social responsibility and sustainability. In keeping with the aim of this study, implications for HEI institutional strategy and policy are discussed, which forms part of the *Conclusion*.

## 2. Literature Review

Despite the widespread use of the concept of CSR in academia, industry and society, it is still difficult to provide a clear definition of SR (Sheehy, 2015). Although there is a large number of studies focused on mapping this field (see, for example, Baden and Harwood, 2013), the lack of a consensus about what social responsibility means, or how (or whether) it should be differentiated from related concepts (e.g., corporate citizenship) remains a major weakness for practice development (Whitehouse, 2003). Over a decade ago, six characteristics of SR recurred in the literature: economic, social, ethical, stakeholders, sustainability, and voluntariness (Dahl, 2008), highlighting how SR is entangled with the notion of sustainable development (World Commission on Environment and Development, 1987). In a broad sense, while social responsibility speaks of an organisation's social contract with societal stakeholders; sustainable development may be seen as a principle of justice, having both intra- and inter-generational reach (Sarkar and Searcy, 2016). Sustainability is linked with SR and sustainable development and is concerned with equitably balancing the interconnected needs of the environment, the economy and society, both in the present and into the future, and both locally and globally (Berkes, 2017). While the relationship between SR and sustainable development is complex, SR is often viewed as a key driver of global sustainable development (Kolk and Van Tulder, 2010; Sarkar and Searcy, 2016; Vargas et al, 2019).

Many scholars recognise a need to develop tools to establish and monitor HEIs sustainable development practices (Alonso-Almeida et al. 2015; Urbanski and Leal Filho, 2015). For example, Setò-Pamies and Papaoikonomou (2016) propose HEIs pursue a multi-level strategy involving institutional, curricula, and instrumental mechanisms (see also, Sammalisto and Arvidsson, 2005). In order for sustainability to be embedded in HEIs, organizational changes are required (Exter et al., 2013), along with the active participation of students, faculty and staff in sustainability initiatives (Tilbury et al., 2005). Dobson (2007) argues that approaches that promote environmental citizenship are valuable in promoting long-term attitudinal change, while approaches that emphasise the importance of structural institutional conditions, such as economic structures, are more influential in creating short-term behavioural change. Other scholars argue that HEIs must focus on: 1) the responsible practice of HEIs; and 2) the education of socially responsible graduates. Thus, HEIs must practice good social responsibility, act as role models that identify innovative sustainability practices (Cortese, 2005), become stewards of the natural environment through effective and efficient use of natural resources (Creighton, 2013), promote healthy lifestyles among students (Ahmad, 2012), and prepare students for life in society (Rauen et al., 2013). Although some educational institutions and universities have adopted sustainable development principles (Cortese, 2003; Calder and Clugston, 2003), their wider implementation is criticised for not extending far enough (Alonso-Almeida et al., 2015). In particular, HEIs current and future environmental impacts have yet to be managed in a proactive manner (Ahamad, 2012). For many HEIs, social responsibility and sustainable development are still dependent on individual actions and holistic and integrated approaches are lacking (Lee et al., 2013; Milutinovic and Nikoli, 2014; Sammalisto et al., 2015; Baker-Shelley et al., 2017). For example, the incorporation of social responsibility in strategic plans in Spain (and elsewhere) is still linked to pressure exerted by institutional forces such as funding (Larràn et al., 2016). Globally, despite the existence of several initiatives to stimulate changes (Roos, 2017; Storey et al, 2017), there is substantial variation in perceptions of social responsibility and sustainability among faculty and staff (Sammalisto et al., 2015; see also Samalisto and Arvidsson, 2005; Perez-Batres et al., 2011; Lozano et al., 2013; Wright and Wilton, 2012), as well as resistance to change, and financial and resource barriers (Wright and Wilton, 2012).

The planning and implementation of sustainability policies within institutions' agendas can stimulate new strategic activities (Vagnoni and Cavicchi, 2015). However, the heterogeneous and fragmented way in which university systems try to effectively implement new sustainable actions (Vagnoni and Cavicchi, 2015) reveal the need to analyze in-depth the process by which social responsibility is integrated into these institutions' sustainable development policies.

### 3. Methodology

#### 3.1 Strategy

The research strategy involves a survey of respondents' perception and understanding of the extent to which HEIs are integrating SR and sustainability principles within their operational practices and curricula development. Informed by the literature review, the survey encapsulates questions arising from the research aim: [1] the perceived relative importance of a mix of SR and sustainability practices and principles; [2] scope of responsibility and scale of involvement; and [3] Potential Barriers and Organisation Structural Conditions.

The survey targeted two university networks, comprising 3000 individuals: the Inter-University Sustainable Development Research Programme (<https://www.haw-hamburg.de/en/ftz-nk/programmes/iusrp.html>); and the World Sustainable Development Research and Transfer Centre (<https://www.hawhamburg.de/en/ftz-nk/programmes/wsd-rtc.html>). These networks comprise a broad range of academic and practitioner staff working within HEIs at all levels, functions, and specialisms, and represent an international community with a shared interest in sustainability issues. This means a non-probability sampling strategy was used, involving a combination of *purposive*, *homogeneous*, and *self-selection* methods (Saunders et al, 2003). This sampling strategy directly addresses respondents with experience of the issues who could provide greater insight to the questions in the survey. The weakness of this sampling method is that it relies on a sufficient number of individuals choosing to participate, to provide a meaningful level of representation.

Nevertheless, these special interest networks provide a useful framework for data collection as they reflect global trends in HEI CSR/SR and sustainability practices. While individual countries do create

varying (rather than profoundly different) regulatory approaches to CSR/SR and sustainability, such variation exists both within and across jurisdictions. Further, international goals and conventions (e.g. UN Sustainable Development Goals, UN Framework Convention on Climate Change), and international HEI sustainability networks such as the above promote common ideas and good practices. These agreements and interest groups diminish the significance of national jurisdictions.

### 3.2 Data collection

The three thousand network individuals were emailed inviting them to complete an online questionnaire hosted by Survey Monkey. Data were collected between November and December (2017). The questionnaire comprises 10 closed questions, with Likert scales. In total, 35 responses were received, and 22 completed the survey (13 incomplete responses were removed from the analysis). This represents a response of less than 1%.

### 3.3 Data Analysis

The data was processed using statistical software (SPSS) and associations between social responsibility and sustainability analyzed using multivariate (minimum, maximum, mean, standard deviation and variance) data analysis techniques, following the process recommended by Morrison (1984), Pereira (1999), Montgomery (2001) and Hair et al. (2014). Tables and graphs were generated for each question. Responses to some questions were further examined in search of patterns, from which additional tables were generated. In particular, within the responses to Q1, Q2 and Q3, the pattern of responses to ‘environmental impacts and considerations’ was further examined in order to see the response distribution and therefore better understand the reasons for its ranking in relation to other factor ‘impacts and considerations’. Also, closer examination to responses to Q9 and Q10 shed light on the bifurcation of views here.

### 3.2 Validity and Reliability

In order to guarantee the quality, validity and reliability of the data, the questionnaire was developed by a team of researchers from the Inter-University Research Program for Sustainable Development. A

pilot study was carried out with specialists before releasing the questionnaire into the public domain. This poor level of response (<1%) does not provide population representation, but it still provides a basis for suggesting the existence of patterns about SR/sustainability integration in HEIs in: perceptions about principles and practices; levels of internal engagement; and barriers to integration. These patterns might be explored in subsequent studies.

#### 4.1 Practices and Principles [Q1 – Q3]

*Q.1 How often do the following considerations feature in your organisation's sustainability initiatives (e.g. projects or courses)?*

*Q.2 In terms of your organisation's sustainability initiatives, what is the relative rank order of the following principles? Please place the following principles in relative rank order (1 is the most important through to 10 being the least important)*

*Q.3 In terms of your organisation's sustainability initiatives, how strong are the following motivation(s)?*

These three questions are related, seeking to explore perceptions around everyday practices and principles regarding ten 'impacts and considerations' that shape social responsibility or sustainability, either directly or indirectly. Q1 and Q3 explore the perceived importance of these as part of everyday practices (organized and shared behaviour) within any given HEI: the former (Q1) seeks to assess how often these 'considerations' feature in projects/courses; while the latter (Q3) seeks to understand the comparative motivating strength among the same 'impacts and considerations'. Q2 seeks to draw out perceptions of the relative strength of an HEI's principles regarding sustainability (shared ideas and rules that underpin behaviour) towards the same issues.

*Note: The coding of Q1 and Q2 is reversed: in Q1 'always' (coded 5) equates to the most important in Q2 (coded 1), and 'never' in Q1 (coded 1) equates to the least important. In Q2 (coded 10). In Q2 respondents were asked to rate the ten factors, scoring '1' to most important and '10' as least important.*

*Q1 (practice: habituated behaviour around social responsibility & sustainability)*

Respondents perceive that most of the initiatives listed are considered ‘often’, with none ‘always’ considered (Figure 1, Table 1a). ‘Economic impacts’ are ‘often’ considered, receiving the highest score (4.18/5.00), closely followed by ‘stakeholder impacts’ (2<sup>nd</sup>) (3.9/5.00), with ‘Environmental impacts’ coming later in 5<sup>th</sup> place (3.72/5.00), though still under ‘often’ (Figure 1, Table 1a). This means that while almost all factors are considered ‘often’, environmental impacts are some way down the ranking. As Table 1b shows, individual assessments of ‘environmental impacts and considerations’ are distributed across three of the five categories, with ‘sometimes’ emerging as more common than ‘often’ or ‘always’. This highlights a range of perceived everyday practices that are at the right end of the spectrum, but the relative strength of ‘sometimes’ suggests that everyday practice is at the bottom end of what might be regarded as good practice. Respondents perceive two factors as being ‘sometimes’ considered: ‘sustainable development’ (9<sup>th</sup>) (3.36/5.00), and ‘Voluntary impacts’ (3.13/5.00) (10<sup>th</sup>). It is surprising to see ‘sustainable development’ perceived as belonging towards the bottom of this list.

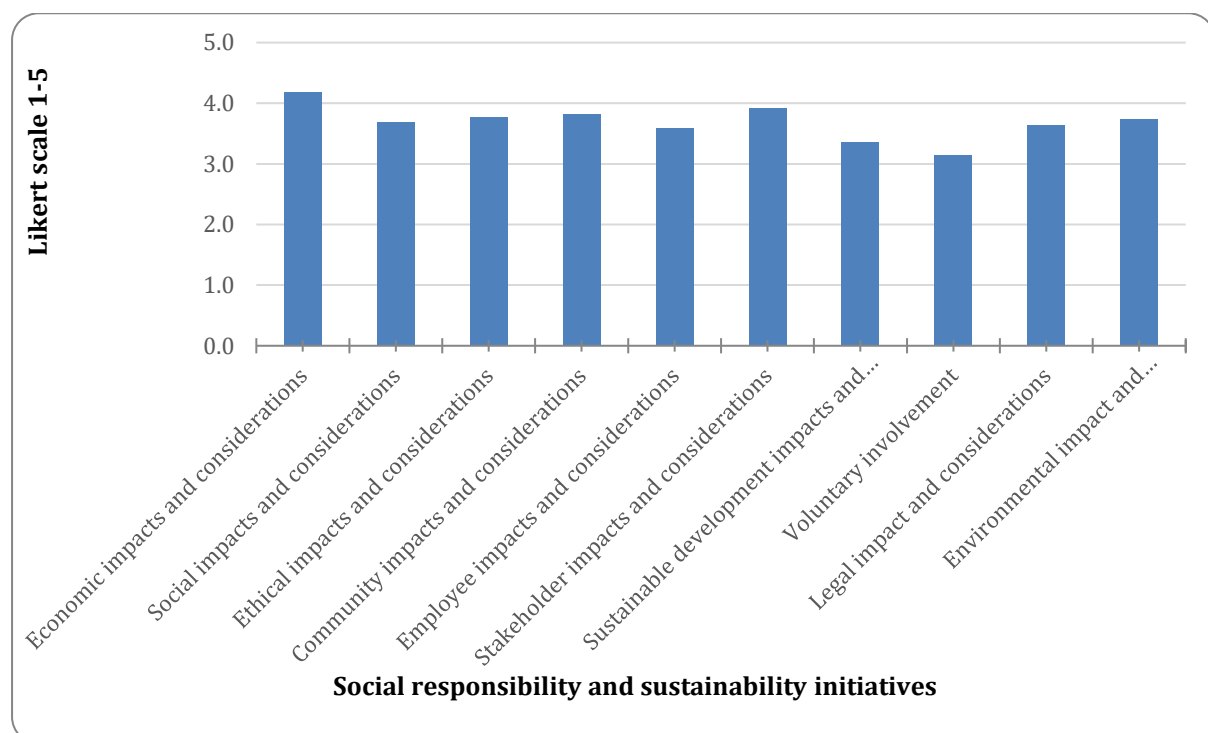


Figure 1: Strength of habituated behaviour around social responsibility and sustainability



Table 1a: Strength of habituated behaviour around social responsibility and sustainability

... impacts and considerations	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Economic	22	2.00	5.00	4.1818	.24296	1.13961	1.299
Social	22	1.00	5.00	3.6818	.25808	1.21052	1.465
Ethical	22	2.00	5.00	3.7727	.21754	1.02036	1.041
Community	22	3.00	5.00	3.8182	.18182	.85280	.727
Employee	22	2.00	5.00	3.5909	.21481	1.00755	1.015
Stakeholder	22	2.00	6.00	3.9091	.23640	1.10880	1.229
Sustainable development	22	1.00	5.00	3.3636	.25942	1.21677	1.481
Voluntary	22	2.00	5.00	3.1364	.21111	.99021	.981
Legal	22	2.00	5.00	3.6364	.27560	1.29267	1.671
Environmental	22	1.00	5.00	3.7273	.22001	1.03196	1.065

Table 1b: Individual assessments of ‘Environmental impacts and considerations’

Survey instrument: order of importance	Likert scale	Data: respondent scoring frequency
Always	5	6
Often	4	6
Sometimes	3	9
Rarely	2	0
Never	1	1

*Q2 (strength of cultivated attitudes towards sustainability principles)*

‘Economic’ impacts are considered the most important factor, followed by ‘social’, then ‘ethical’ and ‘community’ impacts (Figure 2, Table 2a). Given the topic of the study, this is encouraging as it shows recognition of two pillars of sustainability (economic and social). However, ‘environmental impacts and considerations’ is in 6<sup>th</sup> place, marking it out as being of middling importance. Close examination of individual assessments of ‘environmental impacts and considerations’ (Table 2b) shows a wide range of perceptions about its importance, from most important to least important; indeed, perceptions are clearly divided about its importance with over 36% of respondents seeing it as least important.

‘Sustainable development considerations’ in 9<sup>th</sup> place is just one place ahead of ‘Voluntary impacts’, the latter perceived to be the least important factor. Again it is surprising to see sustainable development near the bottom of the ranking.

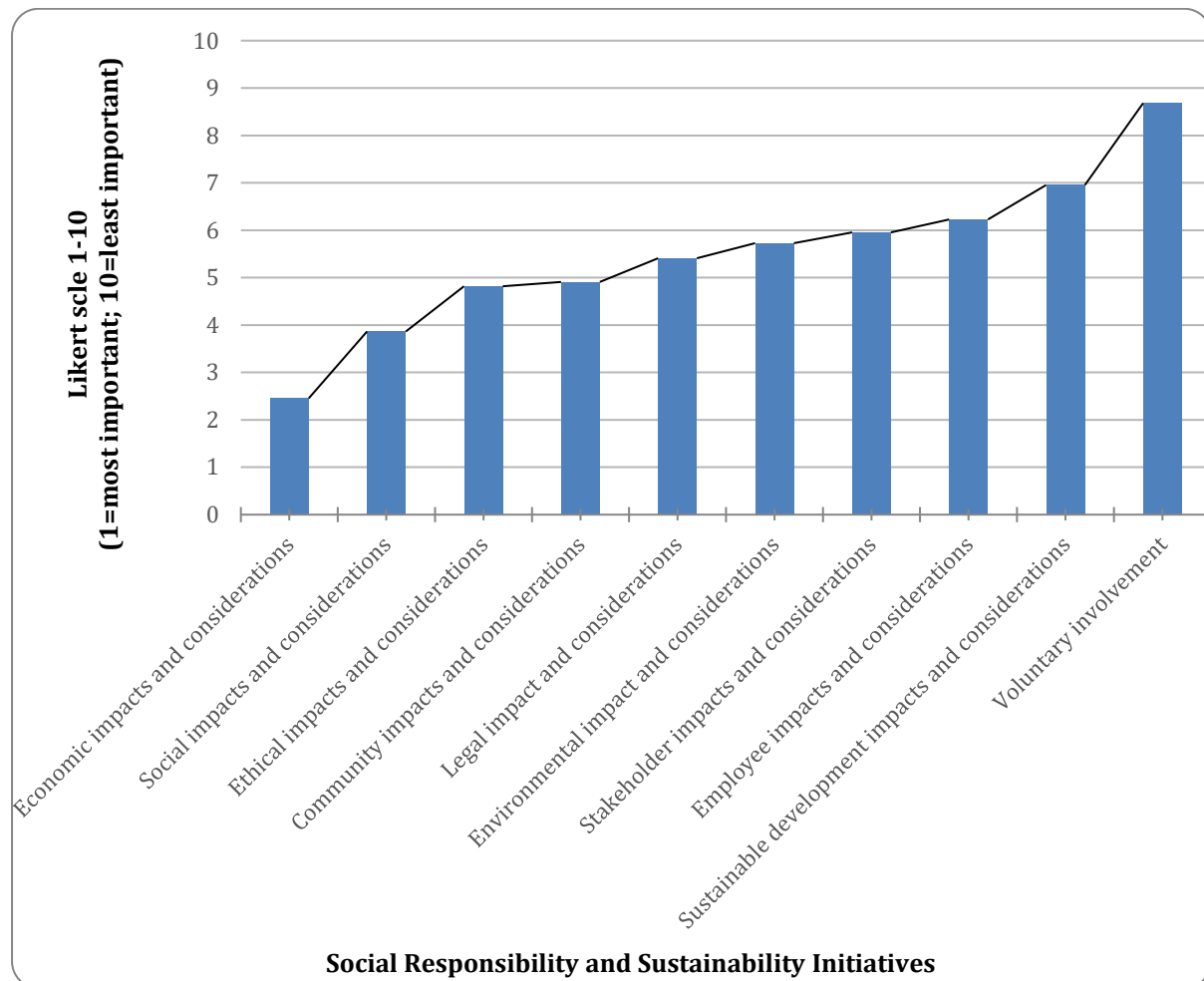


Figure 2: Strength of cultivated attitudes towards sustainability principles

Table 2a: Principles

... impacts and considerations	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Economic	22	1.00	7.00	2.4545	.42501	1.99350	3.974
Social	22	1.00	7.00	3.8636	.40716	1.90976	3.647
Ethical	22	1.00	9.00	4.8182	.48633	2.28111	5.203

Community	22	2.00	10.00	4.9091	.49197	2.30753	5.325
Employee	22	1.00	9.00	6.2273	.46025	2.15874	4.660
Stakeholder	22	2.00	9.00	5.9545	.44370	2.08115	4.331
Sustainable development	22	1.00	10.00	6.9545	.52421	2.45875	6.045
Voluntary	22	3.00	10.00	8.6818	.41292	1.93677	3.751
Legal	22	1.00	10.00	5.4091	.67631	3.17219	10.063
Environmental	22	1.00	10.00	5.7273	.75070	3.52112	12.398

Table 2b: Individual Assessments of ‘Environmental impacts and considerations’

Survey instrument scoring [Likert 10 point scale]	Data: respondent scoring frequency	Grouping scores into 3 levels: 1-3 very important; 4-7 important; 8-10 least important
1	3	
2	3	
3	2	8
4	1	
5	2	
6	2	
7	1	6
8	0	
9	2	
10	6	8

*Q3 (strength of motivation behind social responsibility and sustainability)*

Respondents perceive seven of the ten factors as between ‘significant motivator’ and ‘motivator’, with ‘economic impacts’, being the most significant, followed by ‘social impacts’ and ‘community impacts’ (Figure 3). Respondents perceive ‘voluntary involvement’ to be a weak ‘partial motivator’, somewhat towards being ‘not a motivator’. ‘Environmental impacts and considerations’ is ranked a ‘motivator’ and 4<sup>th</sup>. Similar to Q1 and Q2 responses, there is a broad distribution of perceptions about the importance of ‘environmental impacts and considerations’, spread across three of the four categories (Figure 3, Table 3a).

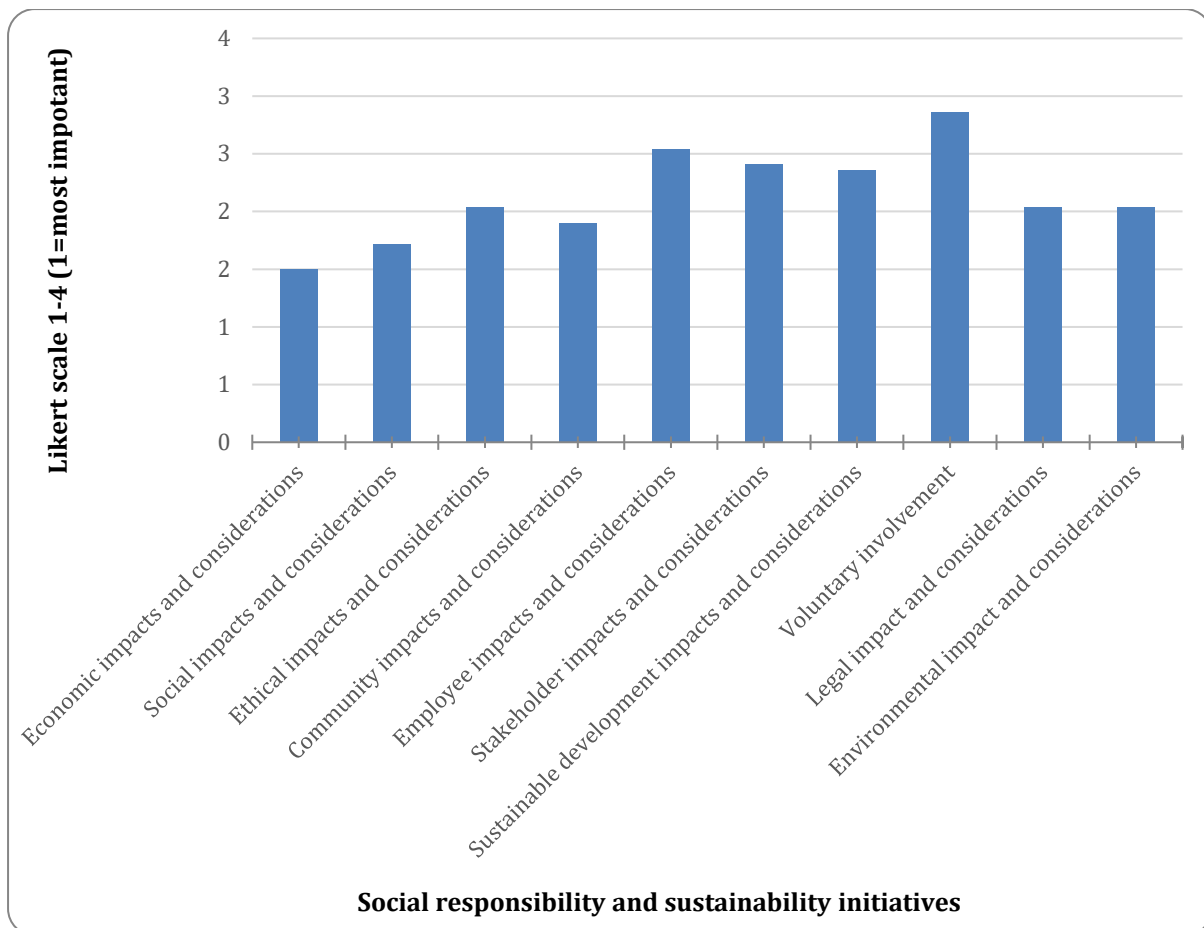


Figure 3: Motivation

Table 3a: Motivation

... impacts and considerations	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Economic	22	1.00	4.00	1.5000	.18317	.85912	.738
Social	22	1.00	4.00	1.7273	.17632	.82703	.684
Ethical	22	1.00	4.00	2.0455	.16745	.78542	.617
Community	22	1.00	3.00	1.9091	.15994	.75018	.563
Employee	22	1.00	4.00	2.5455	.20521	.96250	.926
Stakeholder	22	1.00	4.00	2.4091	.18209	.85407	.729
Sustainable development	22	1.00	4.00	2.3636	.21366	1.00216	1.004
Voluntary	22	2.00	4.00	2.8636	.13636	.63960	.409
Legal	22	1.00	4.00	2.0455	.21297	.99892	.998
Environmental	22	1.00	4.00	2.0455	.19157	.89853	.807

Table 3b: Individual assessments of ‘environmental impacts and considerations’

Survey instrument scoring [order of importance]	Likert Scale	Data: respondent scoring frequency
Significant motivator	1	7
Motivator	2	8
Partial motivator	3	6
Not a motivator	4	1

#### 4.2 ‘Environmental impacts and considerations’

Close examination of individual assessments of this factor (Table 3b) suggests ambivalence in terms of everyday practice (Q1), motivation (Q3), and principles (Q2).

- Q1 (everyday practice): individual assessments are mixed, seeing environmental impacts as somewhat important but not essential (as underscored by ‘sometimes’ and ‘never’).
- Q2 (principles): individual assessments suggest a broad spread from ‘important’ to ‘not important’: 36% of respondents scoring this as important (scores from levels 1+2+3=8), the same proportion scoring this as being of low importance (scores from levels 8+9+10=8), and the remaining 27% scoring this as being of middling importance (scores from levels 4+5+6+7=6).
- Q3 (motivation): individual assessment is varied, with environmental impacts as a ‘significant motivator’ / ‘motivator’ but not essential (as underscored by ‘partial’ and ‘not’).

In all three questions ‘economic impacts’ is followed by one or other social impact consideration:

- Q1: economic; stakeholder; community; ethical; with ‘environmental considerations’ closely following
- Q2: economic; social; ethical; community; environment
- Q3: economic; social; community; ethical, legal, environment [joint 4<sup>th</sup> position]

#### 4.3 Scope of Responsibility and Scale of involvement [Q4, Q5, Q6]

*Q.4 Please comment on the extent to which you agree with the following statements*

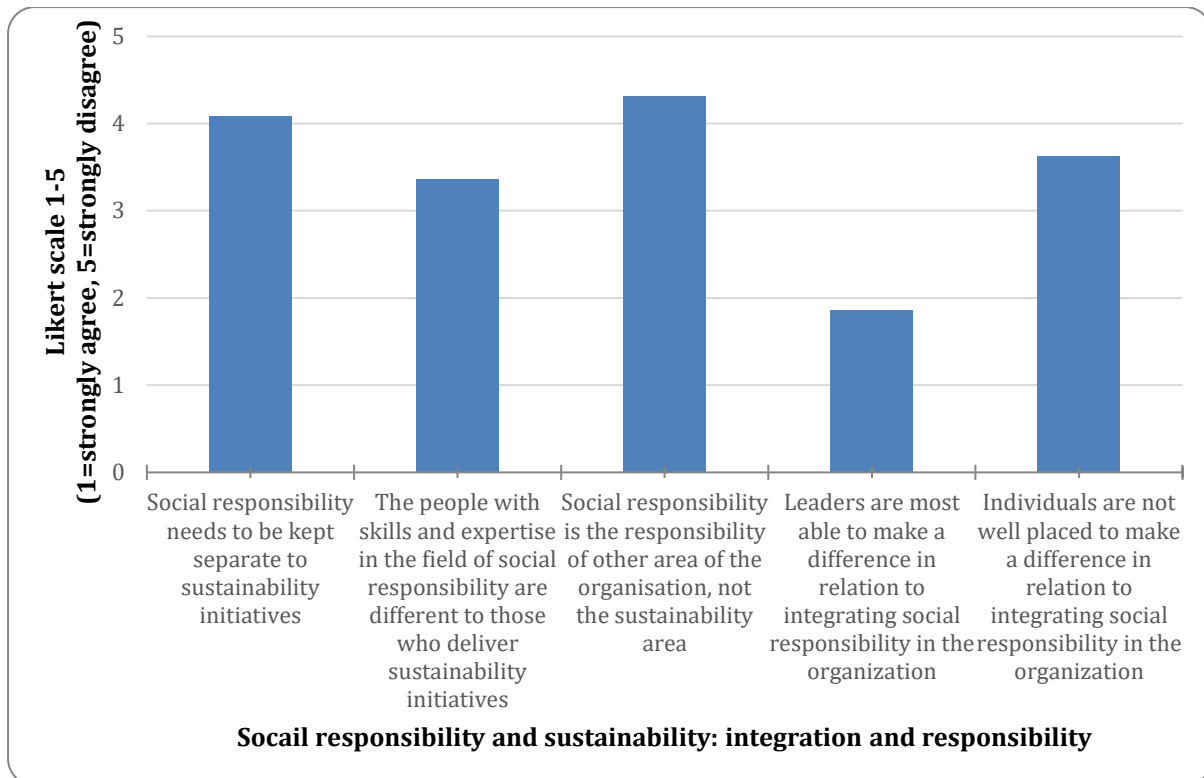


Figure 4: Responsibility for social responsibility and sustainability: integration or differentiation

Table 4: Responsibility for social responsibility and sustainability: integration or differentiation

	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Social responsibility needs to be kept separate to sustainability initiatives	22	1.00	5.00	4.0909	.29358	1.37699	1.896
The people with skills and expertise in the field of social responsibility are different to those who deliver sustainability initiatives	22	1.00	5.00	3.3636	.25942	1.21677	1.481
Social responsibility is the responsibility of other area of the organisation, not the sustainability area	22	2.00	5.00	4.3182	.19054	.89370	.799
Leaders are most able to make a difference in relation to integrating social responsibility in the organisation	22	1.00	3.00	1.8636	.13636	.63960	.409

Individuals are not well placed to make a difference in relation to integrating social responsibility in the organisation	22	2.00	5.00	3.6364	.24215	1.13580	1.290
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As might be expected, there seems an expectation that HEI senior staff is best placed to lead the implementation of social responsibility and sustainability initiatives (Figure 4, Table 4): respondents ‘agree’ that ‘Leaders are most able to make a difference in relation to integrating social responsibility in the organisation’ (Figure 4). Further, there seems to be a readiness (if not expectation) to see social responsibility and sustainability integrated rather than kept as separate areas; respondents ‘disagree’ that,

- Social responsibility needs to be kept separate to sustainability initiatives
- Social responsibility is the responsibility of other areas of the organisation, not the sustainability area
- Individuals are not well placed to make a difference in relation to integrating social responsibility in the organisation

There is no settled view about whether ‘The people with skills and expertise in the field of social responsibility are different to those who deliver sustainability initiatives’, falling between ‘neither agree or disagree’ and ‘agree’ (i.e. between 3 and 4 at 3.36).

*Q.5 In relation to your sustainability initiatives, please tick (1) who you think should be involved and (2) who is involved.*

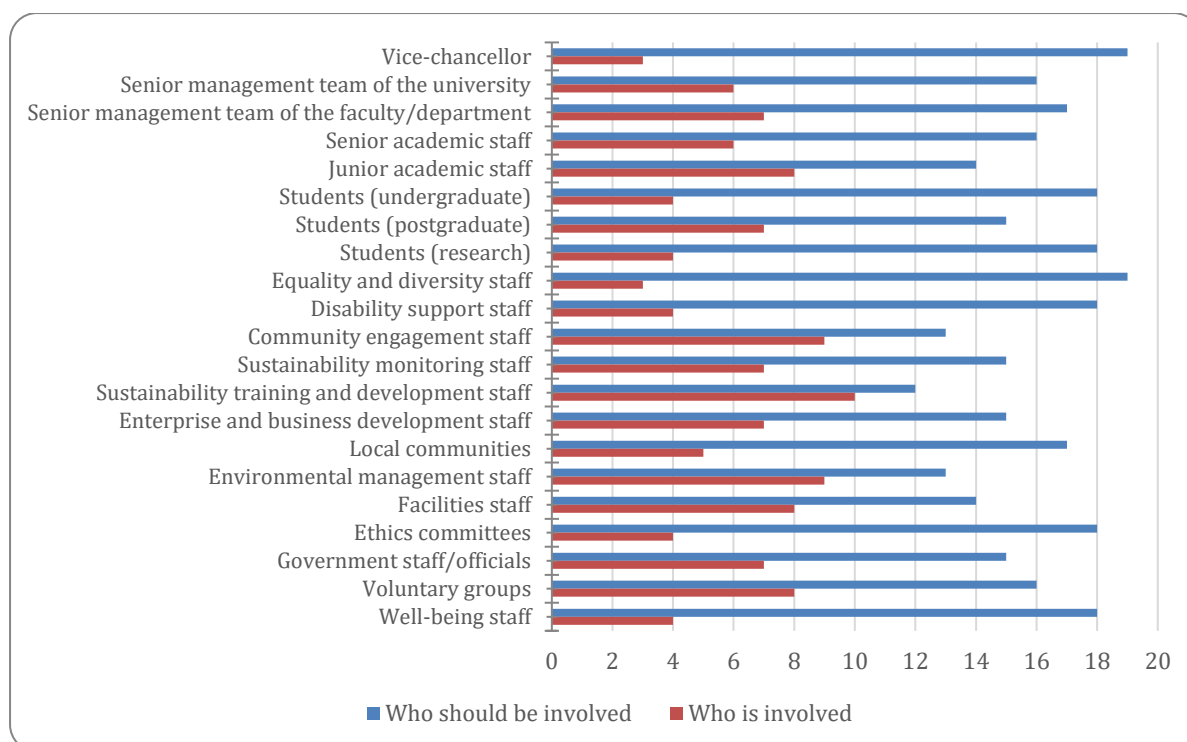


Figure 5: Sustainability Initiatives: Scope of Involvement

Table 5: Sustainability Initiatives: Scope of Involvement

Sustainability: Categories	Who should be involved	Who is involved
Vice-chancellor	19	3
Senior management team of the university	16	6
Senior management team: faculty/department	17	7
Senior academic staff	16	6
Junior academic staff	14	8
Students (undergraduate)	18	4
Students (postgraduate)	15	7
Students (research)	18	4
Equality and diversity staff	19	3
Disability support staff	18	4
Community engagement staff	13	9
Sustainability monitoring staff	15	7
Sustainability training and development staff	12	10
Enterprise and business development staff	15	7
Local communities	17	5
Environmental management staff	13	9
Facilities staff	14	8
Ethics committees	18	4
Government staff/officials	15	7
Voluntary groups	16	8
Well-being staff	18	4

*Q.6 In relation to your social responsibility initiatives, please tick (1) who you think should be involved and (2) who is involved.*



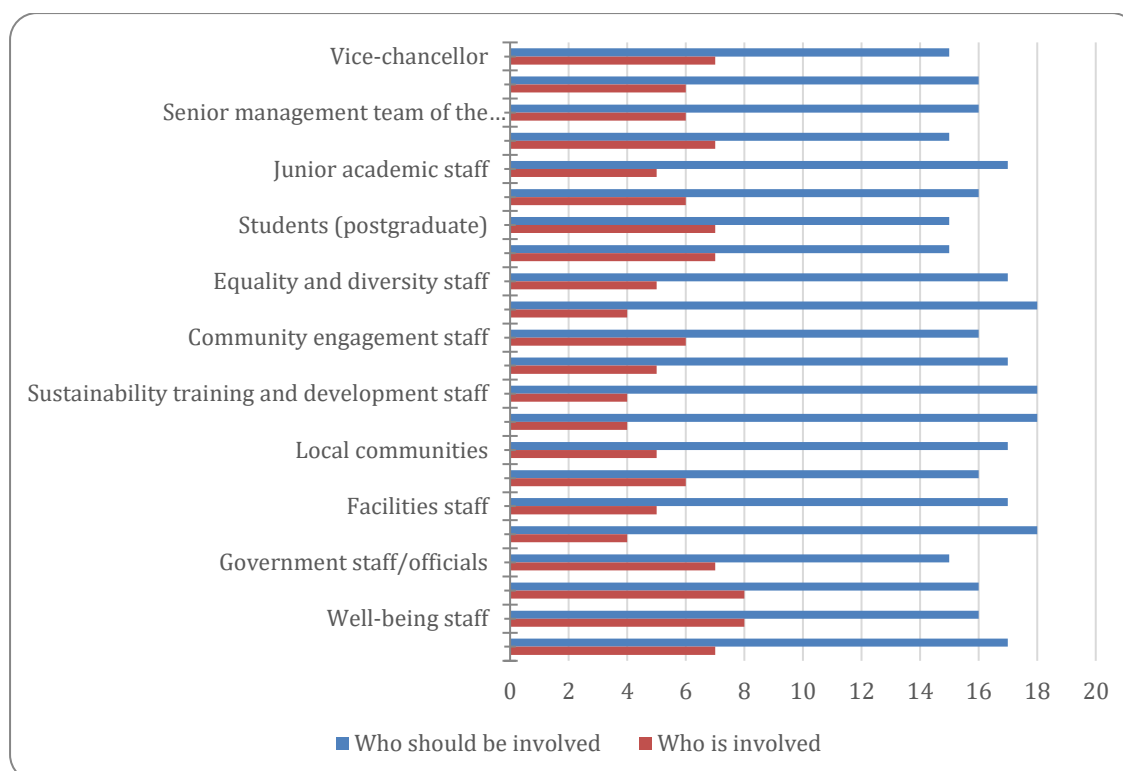


Figure 6: Social Responsibility Initiatives: Scope of Involvement

Table 6: Social Responsibility Initiatives; Scope of Involvement

Social Responsibility: Categories	Who should be involved	Who is involved
Vice-chancellor	15	7
Senior management team of the university	16	6
Senior management team: faculty/department	16	6
Senior academic staff	15	7
Junior academic staff	17	5
Students (undergraduate)	16	6
Students (postgraduate)	15	7
Students (research)	15	7
Equality and diversity staff	17	5
Disability support staff	18	4
Community engagement staff	16	6
Sustainability monitoring staff	17	5
Sustainability training and development Staff	18	4
Enterprise and business development staff	18	4
Local communities	17	5
Environmental management staff	16	6
Facilities staff	17	5
Ethics committees	18	4
Government staff/officials	15	7
Voluntary groups	16	8
Well-being staff	16	8
Other	17	7

Q5 (Figure 5, Table 5) and Q6 (Figure 6, Table 6): There is an expectation that a wide range of personnel should be involved in social responsibility and sustainability initiatives, with marginally more respondents seeing a need for organisation-wide involvement in social responsibility compared with sustainability. The most striking observation is the perception that those ‘who should be involved’ is dramatically higher than those ‘who [are] involved’: 2.5 times for S, and 2.9 times for social responsibility.

Some stakeholder groups were perceived as having very low involvement in sustainability (in contrast to should have) (Figure 5/Table 5): Vice Chancellor (score of 3/22); Ethics Committee; Wellbeing Staff, scoring 3/22. Sustainability Training and Development Staff received the highest score (10/22), which is close to the level of involvement expected of them (12). Similarly, many stakeholder groups were perceived as having low involvement in social responsibility (Figure 6/Table 6), scoring 8 or less out of 22, with some scoring 4 or 5.

#### 4.4 Potential Barriers and Organisation Structural Conditions [Q7 – Q10]

*Q.7 Which of the following are [non-organisational] barriers of integrating social responsibility into your organisation’s sustainability initiatives?*

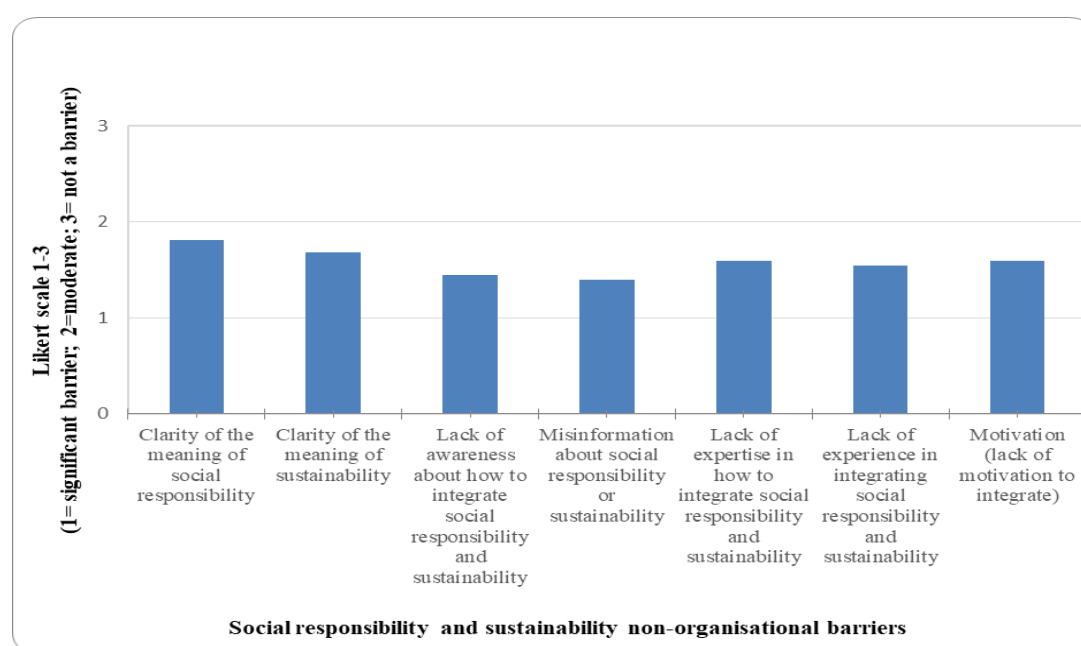


Figure 7: Non-organisational barriers

Table 7: Non-organisational barriers

	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Clarity of the meaning of social responsibility	22	1.00	3.00	1.8182	.16950	.79501	.632
Clarity of the meaning of sustainability	22	1.00	3.00	1.6818	.13780	.64633	.418
Lack of awareness about how to integrate social responsibility and sustainability	22	1.00	3.00	1.4545	.14305	.67098	.450
Misinformation about social responsibility or sustainability	22	1.00	3.00	1.4091	.14202	.66613	.444
Lack of expertise in how to integrate social responsibility and sustainability	22	1.00	3.00	1.5909	.14202	.66613	.444
Lack of experience in integrating social responsibility and sustainability	22	1.00	3.00	1.5455	.15746	.73855	.545
Motivation (lack of motivation to integrate)	22	1.00	3.00	1.5909	.12586	.59033	.348

The non-organisational barriers tend towards being ‘moderate’ rather than ‘significant’ (Figure 7, Table 7). In this group ‘clarity of the meaning of social responsibility’ and of ‘sustainability’ present the lowest barriers although a score of 1.68 for the latter (sustainability) suggests respondent comfort with this area is trailing behind that of social responsibility (1.81). At the other end of the spectrum ‘misinformation about social responsibility or sustainability’ (1.4) and ‘lack of awareness of how to integrate social responsibility and sustainability’ (1.45) present the highest barriers, between ‘significant’ and ‘moderate’ (i.e. between 1 and 2). This suggests that although there are a lot of information and resources available in the public domain (and not tied to organizational sources), misinformation represents an ongoing challenge to building coherence and consensus in HEI implementation and integration of social responsibility and sustainability.

*Q.8 Which of the following are organisational barriers of integrating social responsibility into your sustainability initiatives?*

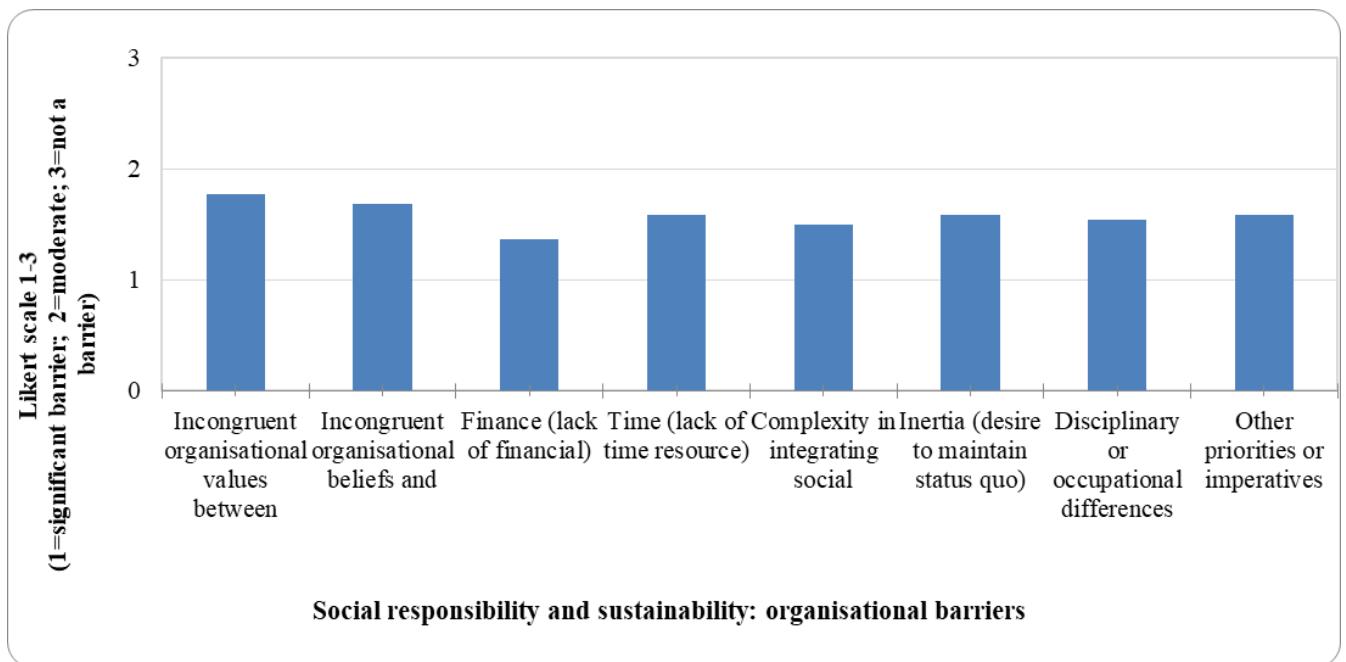


Figure 2: Organisational barriers

Table 8: Organisational barriers

	Statistic	Minimum	Maximum	Mean		Std. Deviation	Variance
		Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Incongruent organisational values between social responsibility and sustainability	22	1.00	3.00	1.7727	.16025	.75162	.565
Incongruent organisational beliefs and assumptions between social responsibility and sustainability	22	1.00	3.00	1.6818	.15270	.71623	.513
Finance (lack of financial resource)	22	1.00	3.00	1.3636	.14028	.65795	.433
Time (lack of time resource)	22	1.00	3.00	1.5909	.14202	.66613	.444
Complexity in integrating social responsibility and sustainability	22	1.00	3.00	1.5000	.15777	.74001	.548
Inertia (desire to maintain status quo)	22	1.00	3.00	1.5909	.14202	.66613	.444
Disciplinary or occupational differences	22	1.00	3.00	1.5455	.12703	.59580	.355
Other priorities or imperatives	22	1.00	3.00	1.5909	.12586	.59033	.348

Evidence suggests that organisational barriers are tending toward being ‘moderate’ rather than ‘significant’, the most ‘significant’ factor being the ‘lack of finance’ (1.36) (Figure 8, Table 8). Encouragingly, ‘incongruent organisational values...’ and ‘incongruent beliefs and assumptions...’ are perceived as presenting the lowest barriers in this group, scoring ‘moderate’ (values = 1.77, beliefs and assumptions = 1.68). All other factors of ‘time’, ‘complexity’, ‘inertia’, and ‘disciplinary ... differences’ almost uniformly are seen as midway between ‘moderate’ and ‘significant’ barriers’ (Figure 8).

*Q. 9 Please comment on the extent to which you agree with the following statements:*

There is a broad agreement with the statements, but it is not strong (Figure 9, Table 9a).. This question has two dimensions. One comprises four types of initiatives; the other comprises social responsibility and sustainability (Table 9b).

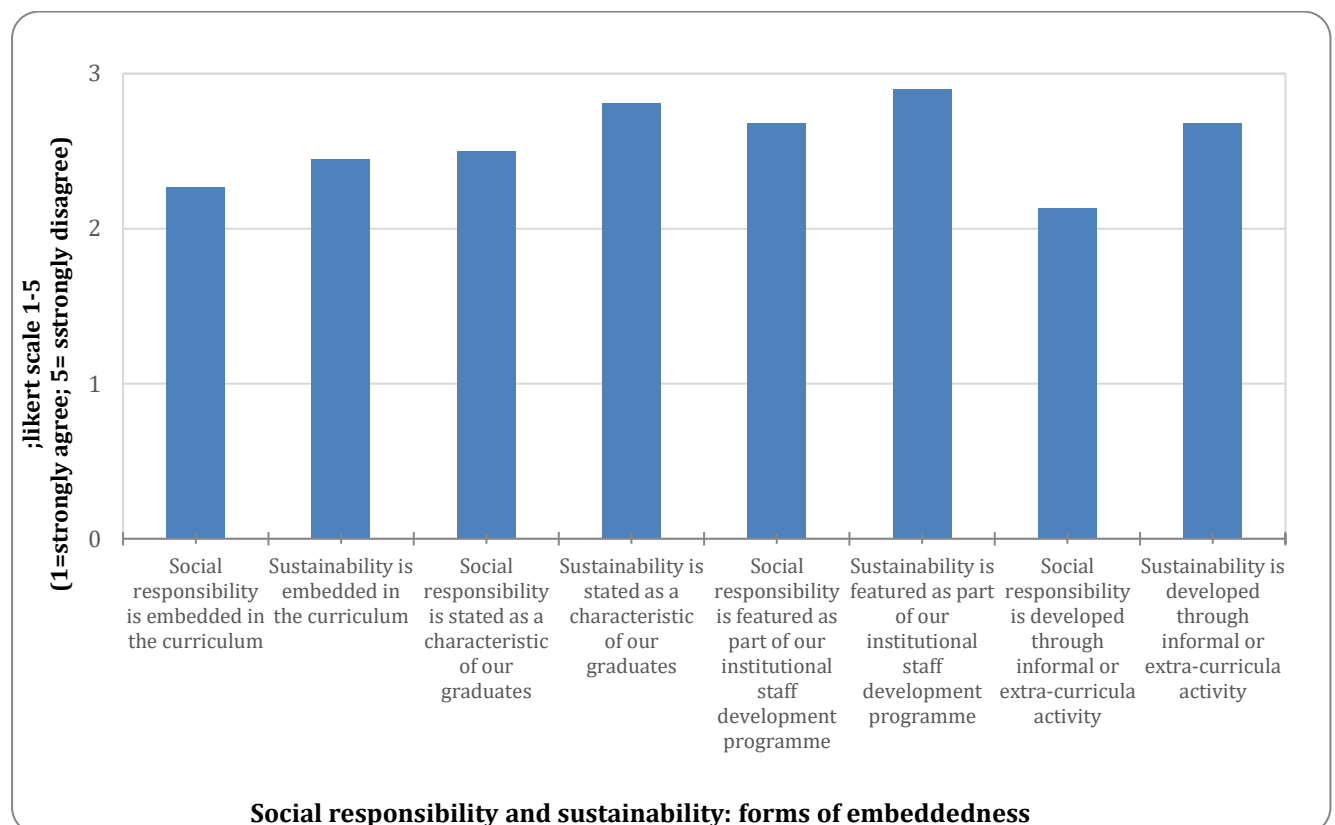


Figure 9: Embeddedness of social responsibility and sustainability

Table 9a: Embeddedness of social responsibility and sustainability

	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Social responsibility is embedded in the curriculum	22	1.00	5.00	2.2727	.22001	1.03196	1.065
Sustainability is embedded in the curriculum	22	1.00	5.00	2.4545	.28473	1.33550	1.784
Social responsibility is stated as a characteristic of our graduates	22	1.00	5.00	2.5000	.21572	1.01183	1.024
Sustainability is stated as a characteristic of our graduates	22	1.00	5.00	2.8182	.26017	1.22032	1.489
Social responsibility is featured as part of our institutional staff development programme	22	1.00	5.00	2.6818	.27435	1.28680	1.656
Sustainability is featured as part of our institutional staff development programme	22	1.00	5.00	2.9091	.28611	1.34196	1.801
Social responsibility is developed through informal or extra-curricula activity	22	1.00	5.00	2.1364	.24877	1.16682	1.361
Sustainability is developed through informal or extra-curricula activity	22	1.00	5.00	2.6818	.28213	1.32328	1.751

Table 9b: Embeddedness of social responsibility and sustainability: Initiatives [drawn from Q9]

	Initiatives Social Responsibility/Sustainability is:	SR initiatives coding: [1+2   3   4+5] =22	Sustainability initiatives coding: [1+2   3   4+5] =22
1	Embedded in the curriculum?	12   9   1	13   5   4
2	Stated as a characteristic of our graduates?	12   7   3	9   8   5
3	Featured as part of our institutional staff development programme?	10   6   6	9   5   8
4	Developed through informal or extra-curricula activity?	17   1   4	13   1   8

Likert scale 1-5: strongly agree (1) | agree (2) | *neutral* (3) | disagree (4) | strongly disagree (5)

Agreement seems stronger in all four areas under social responsibility initiatives, compared with perceptions around sustainability initiatives: the span of agreement for social responsibility (17 to 12) is higher than for S (13 to 9).

There is a similar level of moderate agreement that corporate social responsibility and sustainability are ‘embedded in the curriculum’, and ‘featured as part of our institutional staff development programme’. Agreement is pronounced in one area, that ‘social responsibility is developed through informal or extra-curricula activity’, with little disagreement and minimal non-commitment (uncertainty). Opinion is much more divided on whether this is the case for sustainability initiatives.

Division is strongest (i.e. both agreement and disagreement) on whether initiatives 3 and 4 apply to sustainability; there is weaker disagreement on whether these initiatives exist within corporate social responsibility.

*Q.10 In terms of your organisation’s sustainability initiatives*

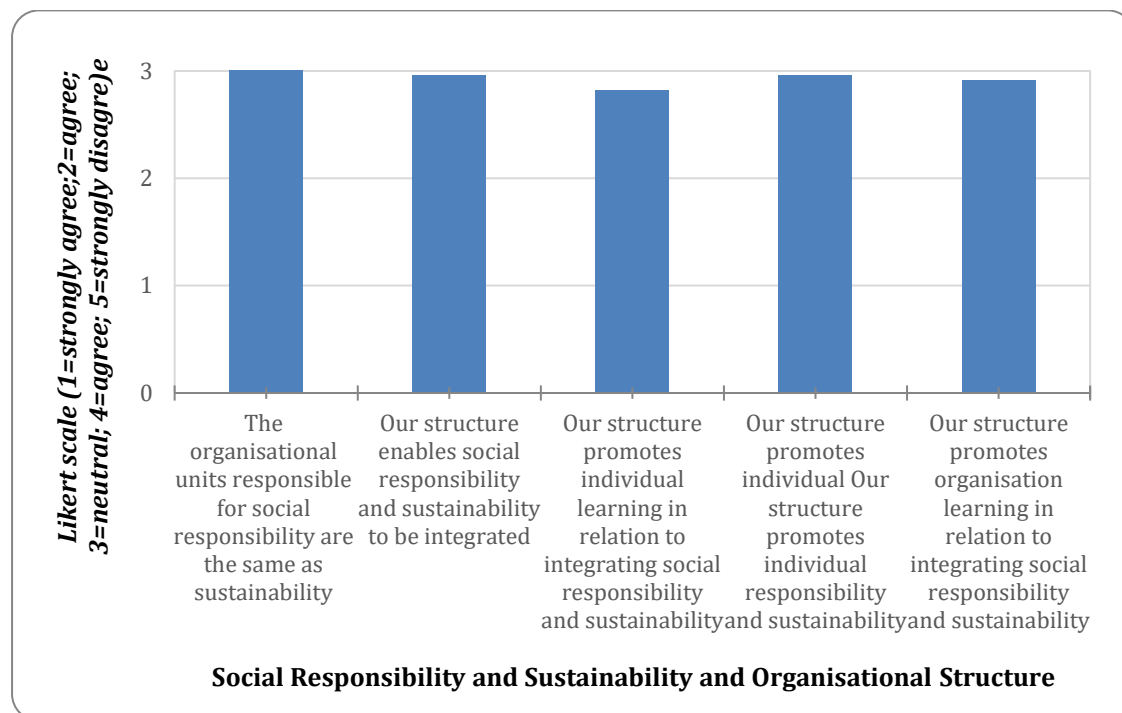


Figure 10: Structure and Integration of social responsibility and sustainability

Table 10a: Structure and Integration of social responsibility and sustainability

	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
The organisational units responsible for social responsibility are the same as sustainability	22	1.00	5.00	3.1818	.29889	1.40192	1.965
Our structure enables social responsibility and sustainability to be integrated	22	1.00	5.00	2.9545	.27506	1.29016	1.665
Our structure promotes individual learning in relation to integrating social responsibility and sustainability	22	1.00	5.00	2.8182	.25172	1.18065	1.394
Our structure promotes individual responsibility and sustainability	22	1.00	5.00	2.9545	.23241	1.09010	1.188
Our structure promotes organisation learning in relation to integrating social responsibility and sustainability	22	1.00	5.00	2.9091	.22706	1.06499	1.134

In aggregate terms respondents ‘neither agree or disagree’ regarding these initiatives, as the average score for each initiative hovers around ‘3’ (Figure 10, Table 10a). However, this aggregate score masks divergent responses, with the mid position of ‘neither agree or disagree’ (3) having value in its own right and distinct from comparatively strong responses both below (1 and 2) and above (4 and 5) the mid score on each initiative. Grouping scores into three (1,2 | 3 | 4,5) highlights this division

Table 10b: Bifurcation of views on Social Responsibility and Sustainability within Organisational Structure [drawn from Q10]

Initiatives*	Strongly agree [1] + agree [2]	neither agree or disagree [3]	Disagree [4] + strongly disagree [5]
1	(4+3) = 7	4	(7+4) = 11
2	(3+6) = 9	5	(5+3) = 8
3	(3+6) = 9	7	(4+2) = 6
4	(2+5) = 7	9	(4+2) = 6
5	(2+5) = 7	10	(3+2) = 5

#### Initiatives

- 1 The organisational units responsible for social responsibility are the same as sustainability;
- 2 Our structure enables social responsibility and sustainability to be integrated;
- 3 Our structure promotes individual learning in relation to integrating social responsibility and sustainability;
- 4 Our structure promotes individual responsibility and sustainability;
- 5 Our structure promotes organisation learning in relation to integrating social responsibility and sustainability.



The pattern in Table 10b shows varying degrees of divergent perceptions, being more marked in relation to initiatives 1 and 2 (and a less non-committal segment), and less divergent in relation to initiatives 4 and 5 (and so with a larger non-committal segment).

It is possible to see the responses to the question as bifurcated. There is clear disagreement with statement 1 (score of 11 accounting for 50% of the sample), but there is also sizeable agreement (accounting for about 32% of the sample), with about 18% not committing to either agree or disagree. With initiative 2, there is both clear agreement (40%) and disagreement (36%), with those not committing either way accounting for about 23%.

Responses to initiative 3 show increased doubt and reduced 'disagreement': 41% agree, 32% disagree, and 27% cannot decide. Still there is clear agreement and clear disagreement.

Responses to initiative 4 again demonstrate both clear agreement (32%) and clear disagreement (27%) (albeit smaller compared with initiatives 1 and 2), but also a much stronger non-committed proportion of responses (41%).

Perceptions around initiative 5 suggest the strongest level of doubt (45%). Those agreeing or disagreeing account for 32% and 23% respectively, which still represent substantial levels of divergence, but the level of doubt has grown as the level of disagreement has shifted down.

## 5. Discussion

Various authors have noted that HEIs are well placed to educate society about the need for better management of natural resource consumption (Bernheim, 2003; Lozano, 2006; Wals, 2014; Gamage and Sciulli, 2016), through leading by example (Carroll and Shabana, 2010) and educating future leaders (through the curriculum) (Felton and Sims, 2005; Sherman and Hansen, 2010; Tilbury, 2011). Also, a recent volume produced by a team from the European School of Sustainability Science and Research on social responsibility and sustainability, documents a wide range of experiences in this field (Leal Filho 2019). However, the evidence from this study (*Results and Analysis, Practices and Principles*) shows 'economic impacts and considerations' are the most significant concern, both in

practice (i.e. perceptions of what HEIs do as everyday practice) and in principle (i.e. perceptions of what HEIs should prioritise). Further, the ordering of factors shows ‘social’ elements (stakeholder, community, social) receive higher scores than ‘environmental’ considerations. In addition, the perceived relative importance of ‘sustainable development’ as a distinct entity is very low relative to what might be regarded as its constituent parts (economic, social and environmental factors) [see ‘limitations and weaknesses’].

Theoretically, despite significant developments to re-orient HEIs towards a ‘sustainable development’ agenda, the results suggest that there is still a predominant focus on economic framings and decision making within HEIs at the expense of other elements. In particular, economic framings and considerations are seemingly more significant in decision making than other factors including social responsibility and sustainability. Our findings suggest that in preparing HEI strategic and operational plans, the prioritization of ‘economic impacts and considerations’ above all other considerations remains secure, even as social responsibility and sustainability have become established ideas informing institutional missions and policies. The cocktail of economic, social, and environmental considerations that constitute social responsibility and sustainability has not transformed HEI strategy formulation away from the primacy of economic considerations. Rather, institutional attitudes and behaviour accommodate the addition of social and environmental considerations as part of their strategic plans. Further, HEIs are perceived as prioritising social factors, especially external stakeholder/community interests, above environmental considerations, both in principle and in practice.

This research evidence is consistent with Sammalisto and Arvidsson’s (2005), Whitehouse (2003), and Fifka (2009) findings that there is significant variation within and among HEIs about what constitutes sustainability and social responsibility. However, respondents think that social responsibility has progressed further than sustainability along the integration journey (*Results and Analysis, Potential Barriers and Organisation Structural Conditions, Q9*), in terms of being embedded in the curriculum, as a characteristic of graduates, in staff development programmes, and in extra-curricular initiatives. This study finds that variation in perceptions manifest themselves in diverse ways: as barriers, as staff/stakeholder expectations and in the role of structures. Firstly, respondents are less concerned with ‘clarity of the meaning of social responsibility’ and of ‘sustainability’ and more concerned about

‘misinformation about social responsibility or sustainability’ and ‘lack of awareness of how to integrate social responsibility and sustainability’ (*Results and Analysis, Potential Barriers and Organisation Structural Conditions, Q7*). Secondly, there are significant differences in staff/stakeholders responses: the belief of who should be involved, against who they think is involved in social responsibility and sustainability initiatives (*Results and Analysis, Scope of responsibility and Scale of involvement, Q5, Q6*). Thirdly, the research findings show clear agreement, and at the same time clear disagreement, about whether existing organisational structures help or hinder the integration of social responsibility and sustainability, enable individual participation, or facilitate learning (individual and organisational) (*Results and Analysis, Potential Barriers and Organisation Structural Conditions, Q10*). Such divergent perceptions may reflect a belief that some institutions are developing (or have developed) work organisation policies and structures that integrate social responsibility and sustainable development. Further, perceptions to initiatives 1 and 2 are more divided and show less doubt, compared with responses to initiatives 4 and 5, where there is more doubt. This greater doubt may suggest uncertainty about whether existing structures help or hinder learning (individual and organisational). While agreement is relatively stable and strong, across all initiatives, the level of disagreement seems to reduce while the degree of uncertainty moves up. That is, responses suggest stronger ambivalence regarding questions on individual responsibility and learning (individual and organisational), even as the level of agreement remains strong.

These variations and divergences go some way toward explaining observations by others of the fragmented approach of university social responsibility and sustainability implementation systems. (Lee et al., 2013; Milutinovic and Nikoli, 2014; Sammalisto et al., 2015; Vagnoni and Cavicchi, 2015; Baker-Shelley et al., 2017). The variation and divergence in perceptions identified in this research may emerge from the fragmented approaches in HEI social responsibility and sustainability implementation. In particular, evidence from this study (*Results and Analysis, Potential Barriers and Organisation Structural Conditions, Q10, initiatives 1 and 2*) suggests some HEIs are recognised for pursuing an integrated approach to social responsibility and sustainability in the sense of having common working teams and structures. The evidence is equally strong that other HEIs are lacking a coherent organisational framework. (*Q10, initiatives 3, 4, 5*). Moreover, perceptions are mixed about whether

organisational structures promote individual or organisational learning with respect to social responsibility and sustainability integration, or even help individuals participate fully in social responsibility and sustainability. This is consistent with findings from previous studies such as Friman et al.'s (2018) when performing cross country comparison work,

Despite challenges within HEIs around clarity of meaning, misinformation, misconceptions, barriers, and divergent views on whether existing organisation structures help or hinder integration, this research finds evidence of HEIs pursuing multi-level integration strategies (*Results and Analysis, Potential Barriers and Organisation Structural Conditions, Q9*) of the kind proposed by Setò-Pamies and Papaoikonomou (2016), involving institutional, curricula, and instrumental mechanisms. However, variation in perception regarding achievements in social responsibility compared with sustainability is also found. There is broad agreement that social responsibility is embedded more firmly in the curricula; is a characteristic of graduates; is a feature of institutional staff development; and is an informal extra-curricula activity. Perceptions are much more divided on the achievements of sustainability initiatives, in particular on institutional staff development and extra-curricula activity. Theoretically, this highlights an ongoing distinction and separation with the two concepts in organisational practice.

The extent to which individuals and organisations are likely to make this distinction raises policy implications for how HEIs respond to a weak commitment to environmental ethics and which are likely to manifest in many areas, noted earlier: organisational values and beliefs, corporate governance (Ntim and Soobaroyen, 2013), assessment of institutional quality (Weerts and Sandemann, 2010), and institutional reputation and customer satisfaction (Saeidi, Sofian, Saeidi, Saeidi and Saeidi, 2015).

Drawing on Sammalisto and Arvidsson (2005), one task for such an approach would be to look for ways of unifying perceptions of, and strategies for institutionalizing, social responsibility and sustainability.

## 6. Conclusions and implications for HEI strategy and policy

Theoretically, this paper has highlighted the ongoing relative positioning of economic factors within HEIs, despite significant progress towards sustainable development which aims to re-orient HEIs

towards a more integrated form of decision making and action taking. While there is evidence of progress in the integration of social responsibility and sustainability, there is also evidence that more work needs to be done. In particular, the relatively low ranking of environmental impacts and considerations may suggest that HEIs distinguish between the economic benefits of environmental stewardship and environmental ethics, thereby elevating the former to economic impacts and considerations, while relegating the latter. This distinction might reasonably emerge where HEIs experience financial difficulty, or as systemic consequence of management and reporting systems that (commonly) prioritise quantifiable performance indicators. The paper has one limitation in that a far larger sample would be needed to allow definitive conclusions, but the data gathered has identified a set of trends.

For instance, the results gathered as part of this study suggest that much work is needed to further embed (deepen, transform, and systematize) social responsibility and sustainability. These could be achieved by exploring mechanisms for effectively engaging HEI leadership (to take more responsibility) and encouraging all staff to see social responsibility and sustainability as common purpose. These two spheres of responsibility (social responsibility and sustainability) should be seen as strategically important and be manifest as both operational and curricula concerns. The introduction of meaningful and appropriate key performance indicators for all staff is necessary, not by way of any top down imposition, but through organization-wide champions and consensus building.

The paper has also two main implications. The first is that the paper has highlighted how HEI diversity, fragmentation, and complexity may have a role in providing an overarching framework to organise towards a more holistic consideration of alternative considerations. Secondly, it shows that coherence at the institutional policy level is needed, in order to shape and steer the sustainable development work of HEIs set at the national level. The findings also highlight a number of divergent perceptions: between principles and practice; about which stakeholder should be involved versus which are believed to be involved; and whether existing HEI structural arrangements help or hinder integration. In contrast, the interpretation and value of social responsibility and sustainability depend not only on generic definitions and approaches, but also on the contexts (internal and external

influences) of particular HEIs, as well as their organisational arrangements and hierarchies. Therefore, a broader understanding of the local context is important in appreciating the divergent patterns of behaviour and attitudes found in this study.

Indeed, this provides directions and lines of enquiry for further research beyond this immediate study: because of the diversity, fragmentation, and complexity in contemporary HEIs, additional research could extend the limited number of responses in this study and help identify the more nuanced implementation of the sustainability and social responsibility agendas. As part of this, such work might also help elucidate a more nuanced interpretation of any overlapping territories of the two agendas in practice as well as the more specific areas of tension and conflict. Within such analyses, and following on other comparison works, a greater scope could be developed to better understand the differences spanning across different countries, cultures and higher education systems.

## REFERENCES

- Ahamad J., (2012). Can a university act as a corporate social responsibility (CSOCIAL RESPONSIBILITY) driver? An analysis, *Social Responsibility Journal*, Vol. 8, Issue 1, pp. 77-86.
- Aleixo, A. M., Leal, S., & Azeiteiro, U. M. (2018). Conceptualization of sustainable higher education institutions, roles, barriers, and challenges for sustainability: An exploratory study in portugal. *Journal of Cleaner Production*, 172, 1664-1673.
- Amran, A., Ooi, S. K., Wong, C. Y., and Hashim, F. (2016). Business strategy for climate change: an ASEAN perspective. *Corp Soc Resp Env Ma* 23, 4, 213-227.
- Baden, D., and Harwood, I. A. (2013). Terminology matters: A critical exploration of corporate social responsibility terms. *J. Bus. Ethics*.116, 3, 615-627.

- Baker-Shelley A. van Zeijl-Rozema A. and Martens P. (2017). A conceptual synthesis of organisational transformation: How to diagnose, and navigate, pathways for sustainability at universities? *J. Clean. Prod.* 145, 262-276.
- Berkes, F. (2017). Environmental Governance for the Anthropocene? Social-Ecological Systems, Resilience, and Collaborative Learning. *Sustainability*. 9, 1232-1241.
- Bernheim, A. (2003) How green is green? Developing a process for determining sustainability when planning campuses and academic buildings. *Plann High Educ.* 31, 3, 99–110.
- Bizerril, M., Rosa, M. J., Carvalho, T., & Pedrosa, J. (2018). Sustainability in higher education: A review of contributions from portuguese speaking countries. *Journal of Cleaner Production*, 171, 600-612.
- Calder, M. and Clugston, M. 2003. International efforts to promote higher education for sustainable development. *Plann High Educ.* 31, 30-44.
- Carroll, A. B. and Shabana, K. M. (2010). The business case for corporate social responsibility: A review of concepts, research and practice, *IJMR*. 85-105.
- Cortese, A. D. (2003). The critical role of higher education in creating a sustainable future, *Plann High Educ.* 31, 3, 115–122.
- Cortese, A.D. (2005) Integrating sustainability in the learning community. *J Facil Manag*, 2, 1, 28–35.
- Dahl, A., (2008). How corporate social responsibility is defined: an analysis of 37 definitions. *Corp Soc Resp Env Ma.* 15, 1-13.
- del Mar Alonso-Almeida, M., Marimon, F., Casani, F., and Rodriguez-Pomeda, J. (2015). Diffusion of sustainability reporting in universities: current situation and future perspectives. *J. Clean. Prod.* 106, 144–154.
- Disterheft, A., Caeiro, S., Azeiteiro, U. M., and Leal Filho, W. (2015). Sustainable universities e a study of critical success factors for participatory approaches, *J. Clean. Prod.* 106, 11-21.
- Dobson, A. (2007). Environmental citizenship: Towards sustainable development. *J Sustain Dev*, 15, 5, 276–285.

- Dyer, G. & Dyer, M. 2017. Strategic leadership for sustainability by higher education: the American College and University Presidents' Climate Commitment. *J. Clean. Prod.* 140, 111–116.
- Exter N., Grayson D., and Maher R., (2013) Facilitating organizational change for embedding sustainability into academia: a case study, *J Manag Dev*, 32, 3, 319-332,
- Felton, E. L., & Sims, R. R. (2005). Teaching business ethics: Targeted outputs. *J. Bus. Ethics*, 60, 4, 377-391.
- Fifka, M. S. (2009). Towards a more business-oriented definition of corporate social responsibility: discussing the core controversies of a well-established concept. *Serv Sci Manag.* 2, 4, 312.
- Friman, M., Schreiber, D., Syrjänen, R., Kokkonen, E., Mutanen, A., & Salminen, J. (2018). Steering sustainable development in higher education – outcomes from Brazil and Finland. *Journal of Cleaner Production*, 186, 364-372.
- Gamage, P. & Sciulli, N. (2016) Sustainability Reporting by Australian Universities. *Australian Aust J Publ Admin*, 76, 2, 187–203.
- Gusmão Caiado R.G., de Freitas Dias R., Veiga Mattos L., Gonçalves Quelhas O.L. and Leal Filho W. 2017. Towards sustainable development through the perspective of eco-efficiency - A systematic literature review, *J. Clean. Prod.* 165, 890-904.
- Hair J.F., Black W.C., Babin B.J. and Anderson R.E. (2014). *Multivariate data analysis*. New York (NY): Pearson Education.
- Kolk, A. and Van Tulder, R. (2010). International business, corporate social responsibility and sustainable development. *Int Bus Rev.* 19, 2, 119-125.
- Leal Filho, W., Manolas, E. Pace, P. (2015). The future we want: Key issues on sustainable development in higher education after Rio and the UN decade of education for sustainable development. *International Journal of Sustainability in Higher Education*, 16 (1), pp.112-129, <https://doi.org/10.1108/IJSHE-03-2014-0036>.
- Leal Filho, W. (Ed.) (2019) *Social Responsibility and Sustainability*. Springer, Cham.



- Lee, K., Barker, M., and Mouasher, A., 2013. Is it even espoused? An exploratory study of commitment to sustainability as evidenced in vision, mission, and graduate attribute statements in Australian universities. *J. Clean. Prod.* 48, 10, 20-28.
- Lozano, R., 2006. Incorporation and institutionalization of SD into universities: breaking through barriers to change. *J. Clean. Prod.* 14, 787-796.
- Lozano, R., Lukman, R., Lozano, F. J., Huisingh, D. and Lambrechts, W. (2013), 'Declarations for sustainability in higher education: Becoming better leaders, through addressing the university system', *J. Clean. Prod.* 48, 10–19.
- Milutinovic, S., and Nikolic, V., 2014. Rethinking higher education for sustainable development in Serbia: an assessment of Copernicus charter principles in current higher education practices. *J. Clean. Prod.* 62, 1, 107-113.
- Montgomery D.C. (2001). *Design and analysis of experiments*. Hoboken, NJ: John Wiley & Sons.
- Morrison D.F. (1984). *Multivariate statistical methods*. New York (NY): McGraw-Hill; p. 412.
- Ntim, C. G. & Soobaroyen, T. (2013). Corporate governance and performance in socially responsible corporations: New empirical insights from a neo-institutional framework, *Corp Govern Int Rev*, 21, 5, 468-494.
- Pereira J.C.R. (1999). Analysis of qualitative data: methodological strategies for health, human and social sciences. In Paulo, S, (ed). *Análise de dados qualitativos: estratégias metodológicas para ciências saúde, humanas e sociais* [Analysis of qualitative data: methodological strategies for health, human and social sciences]. São Paulo, 77–99.
- Perez-Batres, L. A., Miller, V. V., Pisani, M. J., 2011. Institutionalizing sustainability: an empirical study of corporate registration and commitment to the United Nations global compact guidelines. *J. Clean. Prod.* 19, 8, 843-851.
- Persons O. (2012). Incorporating Corporate Social Responsibility and Sustainability into a Business Course: A Shared Experience, *J Educ Bus*, 87, 63-72, 106, 3-10.
- Rauen, T., Lezana, L. Rojas, G. & da Silva, V., (2015) Environmental Management: An Overview in Higher Education Institutions. *Procedia Manufacturing*, 3, 3682–3688.

- Roos, J. (2017). Practical wisdom: making and teaching the governance case for sustainability. *J. Clean. Prod.* 140, 117-124.
- Saeidi, S. P., Sofian, S., Saeidi, P., Saeidi, S. P., and Saaeidi, S. A. (2015). How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation, and customer satisfaction? *J Bus Res.* 68, 341-350.
- Sammalisto, K., and Arvidsson, K. (2005). Environmental management in Swedish higher education: directives, driving forces, hindrances, environmental aspects and environmental co-ordinators in Swedish universities. *Int J Sustain High Educ* 6, 1, 18-35.
- Sammalisto, K., Sundström, A., Holm, T., 2015. Implementation of sustainability in universities as perceived by faculty and staff - a model from a Swedish university, *J. Clean. Prod.* 106, 45-54.
- Sarkar S. and Searcy C., 2016. Zeitgeist or chameleon? A quantitative analysis of CSOCIAL RESPONSIBILITY definitions, *J. Clean. Prod.* 135, 1423-1435.
- Saunders, M., Lewis, P. and Thornhill, A. 2003. *Research Methods for Business Students*. Essex. Pearson.
- Searcy, C., Dixon, S.M., Neumann, W.P., 2016. The use of work environment performance indicators in corporate social responsibility reporting. *J. Clean. Prod.* 112, 2907-2921.
- Sedlacek, S., (2013) The role of universities in fostering sustainable development at the regional level., *J. Clean. Prod.* 48, 74–84. Available at: <http://dx.doi.org/10.1016/j.jclepro.2013.01.029>.
- Setò-Pamies D., and Papaoikonomou E. (2016). A Multi-level Perspective for the Integration of Ethics, Corporate Social Responsibility and Sustainability (ECSOCIAL RESPONSIBILITY) in Management Education, *J. Bus. Ethics*, 136, 523-538.
- Sheehy B. (2015). Defining CSOCIAL RESPONSIBILITY, *J Bus Ethics.* 131, 625-648.
- Sherman, P., and Hansen, J. (2010). The new corporate social responsibility: a call for sustainability in business education. *Int J Environ Sustain Dev*, 9, 1-3, 241-254.
- Storey M., Killian S. and O'Regan P. (2017). Responsible management education: Mapping the field in the context of the SDGs, *Int J Manag Educ.* 15, 93- 103.

- Sullivan, R., and Gouldson, A. (2017). The governance of corporate responses to climate change: an international comparison. *Bus Strat Environ*, 26, 4, 413-425.
- Tilbury, D., Coleman, V., and Garlick, D. (2005). A national review of environmental education and its contribution to sustainability in Australia: School education. Department for the Environment and Heritage, and Australian Research Institute in Education for Sustainability.
- Tilbury, D. (2011). Are we learning to change? Mapping global progress in education for sustainable development in the lead up to 'Rio Plus 20'. *Global J Environ Res*, 14, 2, 101–107.
- Urbanski M. and Leal Filho W. (2015). Measuring sustainability at universities by means of the Sustainability Tracking, Assessment and Rating System (STARS): early findings from STARS data, *J. Env Dev Sustain*. 17, 209-220.
- Vagnoni E. and Cavicchi C. (2015). An exploratory study of sustainable development of Italian universities, *Int J Sustain High Educ*. 16, 2, 217-236
- Vargas, V. R., Lawthom, R., Prowse, A., Randles, S., & Tzoulas, K. (2019). Sustainable development stakeholder networks for organisational change in higher education institutions: A case study from the UK. *Journal of Cleaner Production*, 208, 470-478.
- Wals, A.E. (2014). Sustainability in higher education in the context of the UN DESD: are view of learning and institutionalization processes. *J. Clean. Prod.* 62, 1, 8-15.
- Weerts, D. J. and Sandmann, L. R. (2010). Community Engagement and Boundary-Spanning Roles at Research Universities. *J High Educ*, 81, 6, 632-657.
- Whetten, D. A. (1989). What constitutes a theoretical contribution? *The Academy of Management Review*, 14(4), 490-495.
- Whitehouse, L. (2003). Corporate social responsibility, corporate citizenship and the global compact a new approach to regulating corporate social power? *Global Soc Pol*. 3, 3, 299-318.
- World Commission on Environment and Development (1987). *Our Common Future*. Oxford: Oxford University Press.
- Wright, T., Wilton, H. 2012. Facilities management directors' conceptualizations of sustainability in higher education. *J. Clean. Prod.*, 31, 118-125.